

1. Precast units shall comply with the requirements of ASTM-C913.
2. Reinforcing steel shall be Grade 60.
3. All joints shall be sealed with a nonshrink grout, unless otherwise specified by the Engineer.
4. ASTM-C913 Rectangular Boxes (Table X1.1) may be used above transitions.
5. Min. 2" cover on all rebars, except 1" allowed at rebar ends and as otherwise set forth in ASTM-C913.
6. 4" Diameter grate should be used when rectangular sections are not used.
7. Maximum size outlet from base is 24" Diameter.

NOTES

Not To Scale

REDRAWN: TJA 7/05

Designed	<u>A. WOOD</u>	Date	<u>4/93</u>
Drawn	<u>S. DUNN</u>		<u>4/93</u>
Checked	_____		_____
Approved by	_____		_____

_____COUNTY, PENNSYLVANIA

PRECAST CONCRETE HOPPER

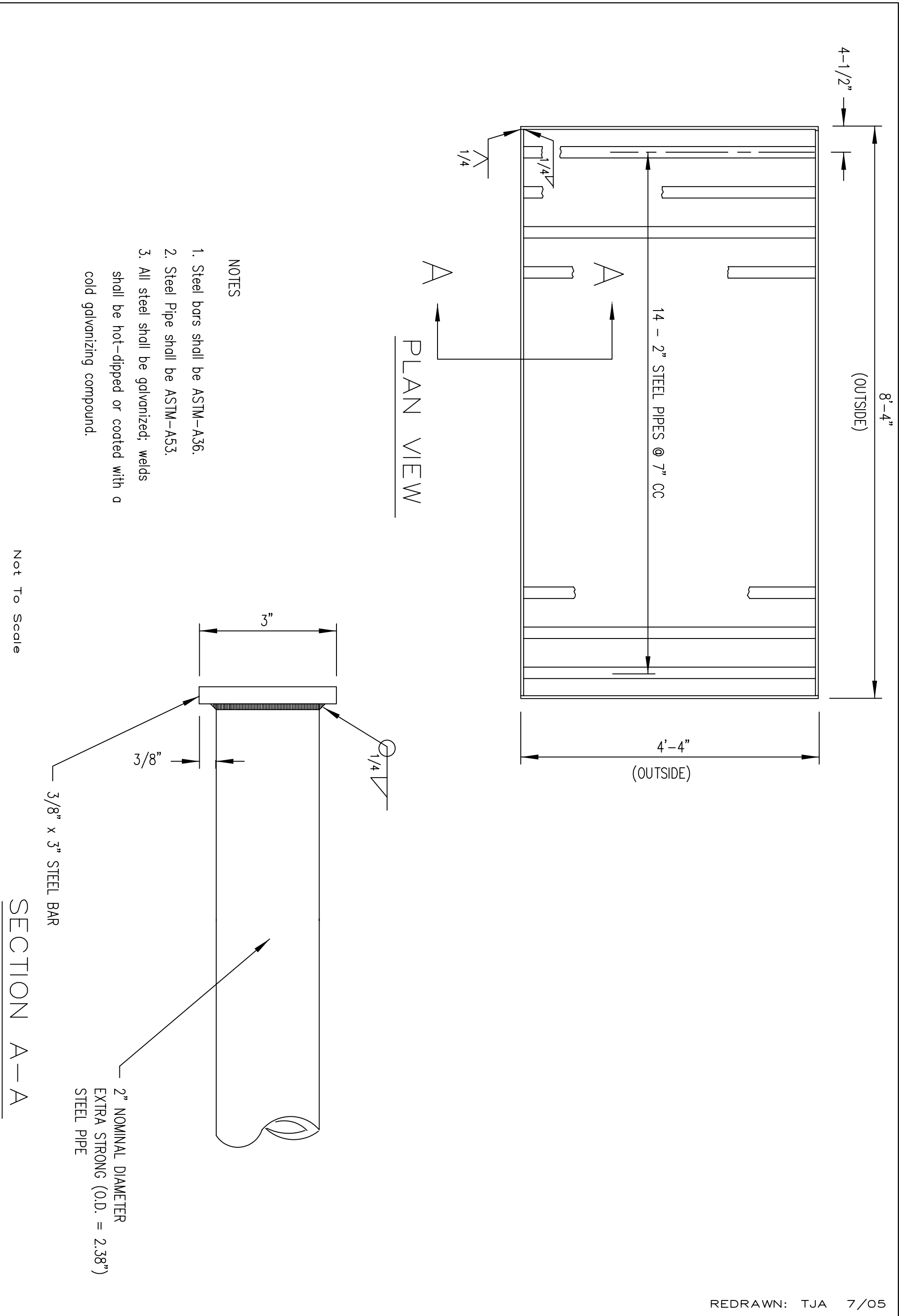


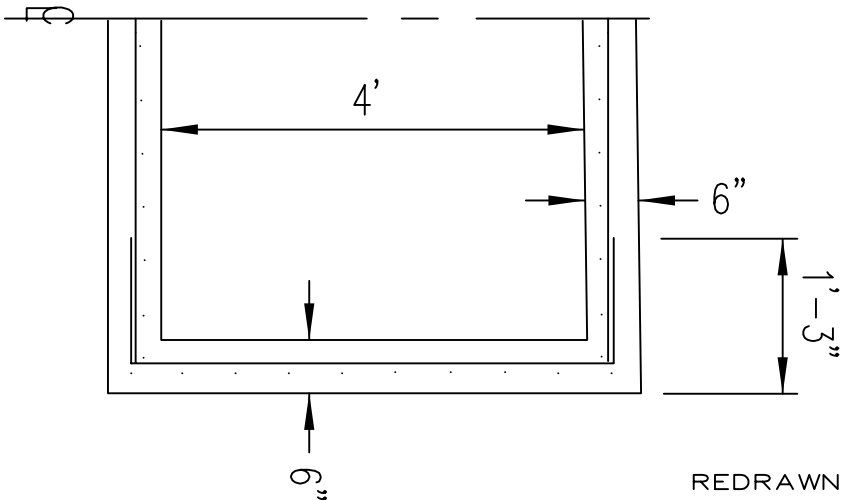
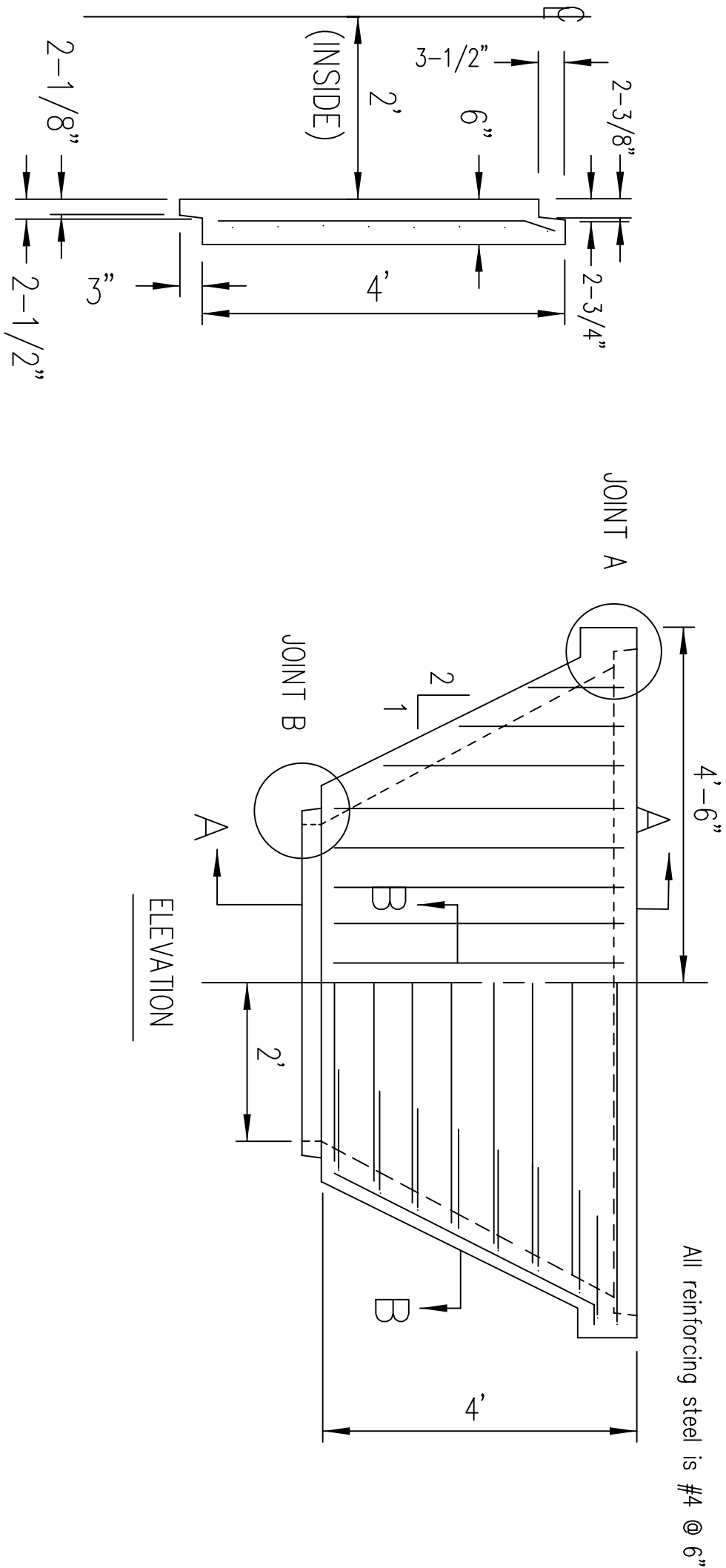
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PA-045A.dwg

Drawing No.

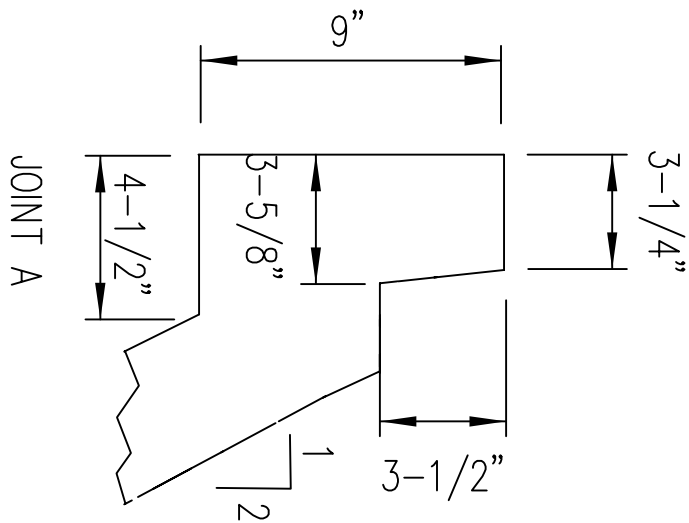
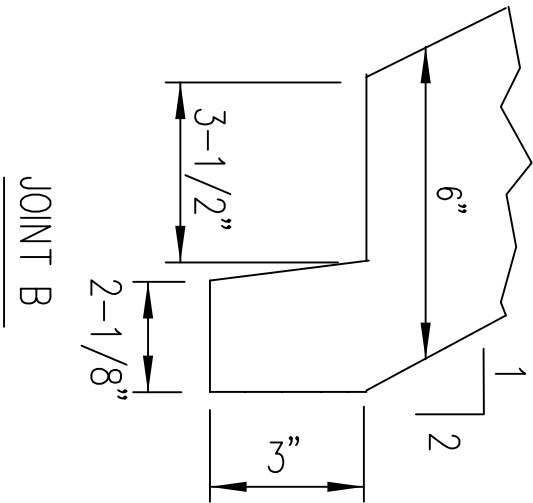
PA-045A

Sheet _____ of _____





HALF-SECTION A-A



REDRAWN: TJA 7/05

Designed A. WOOD Date 5/92
Drawn S. DUNN 5/92
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8' X 4' TRANSITION

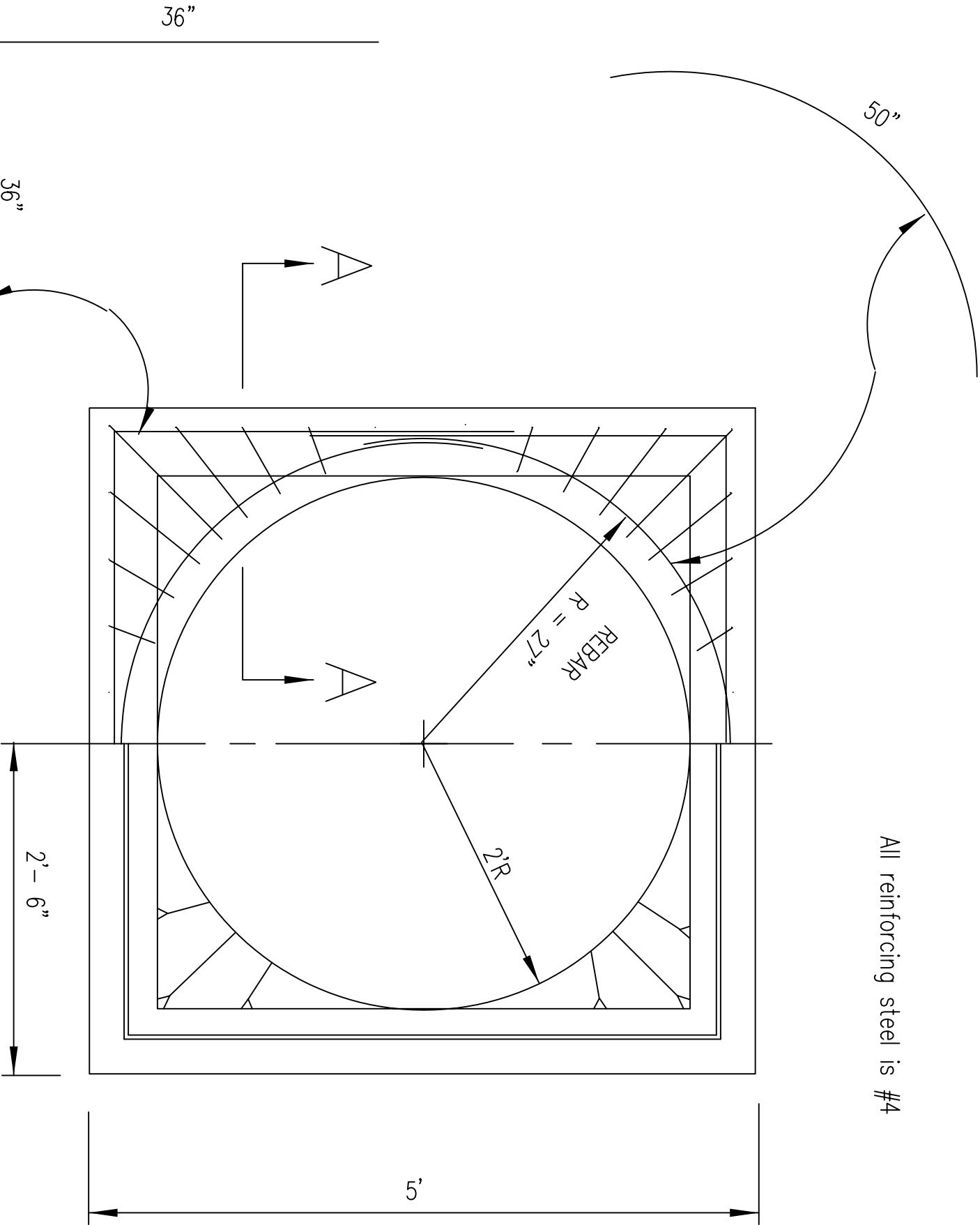


See notes - PA-045A

Not To Scale

File No. <i>PA-045C.dwg</i>
Drawing No. <i>PA-045C</i>
Sheet: _____ of _____

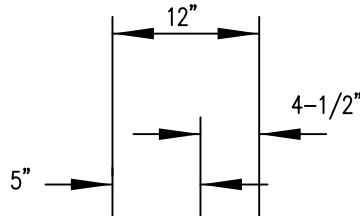
All reinforcing steel is #4



PLAN

SECTION A-A

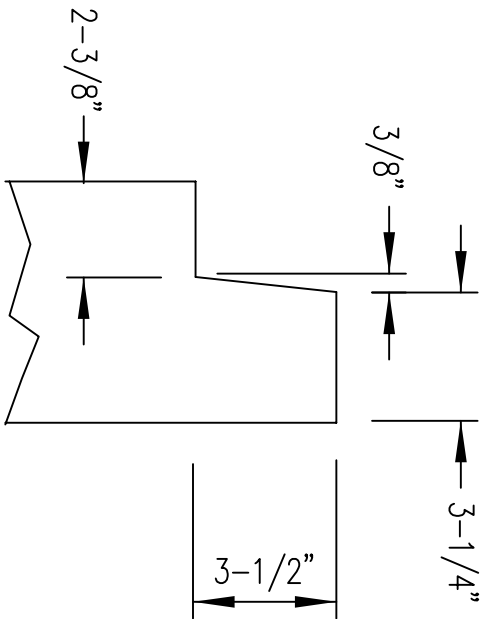
ELEVATION



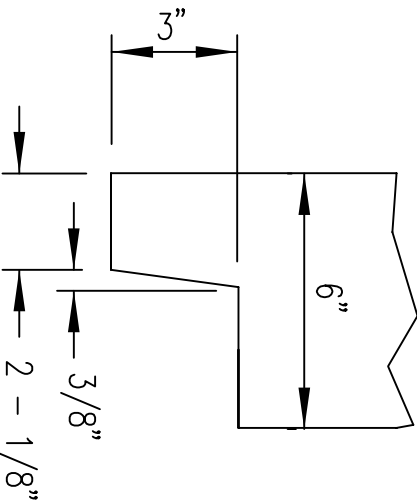
DETAIL B

DETAIL A

DETAIL B



DETAIL A



Not To Scale

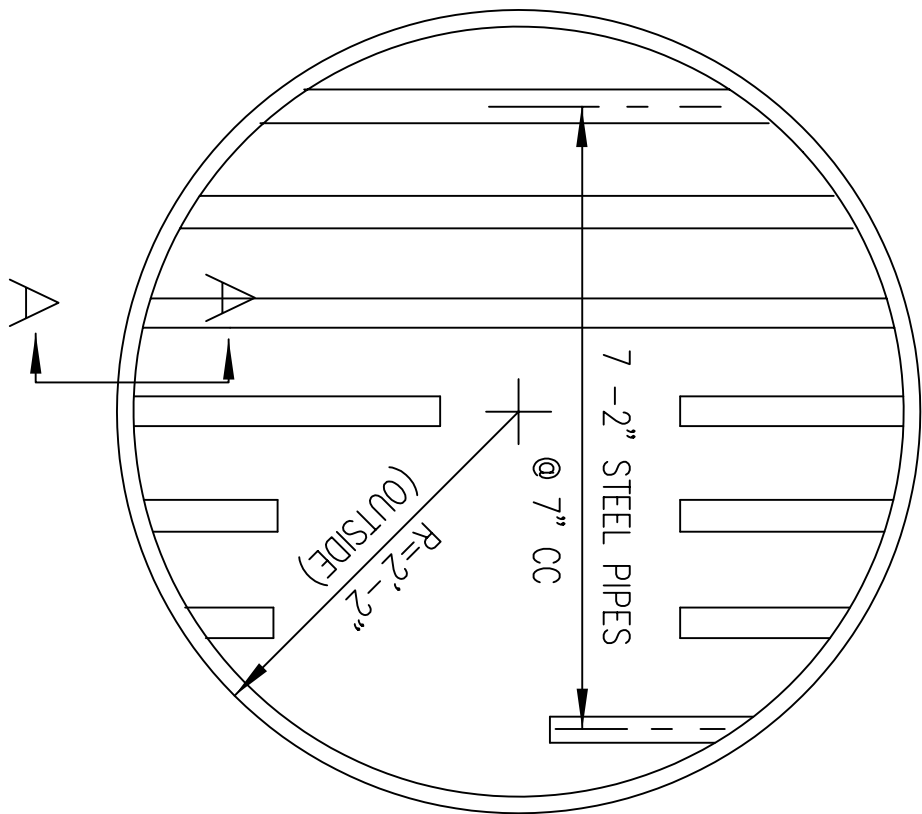
REDRAWN: TJA 7/05



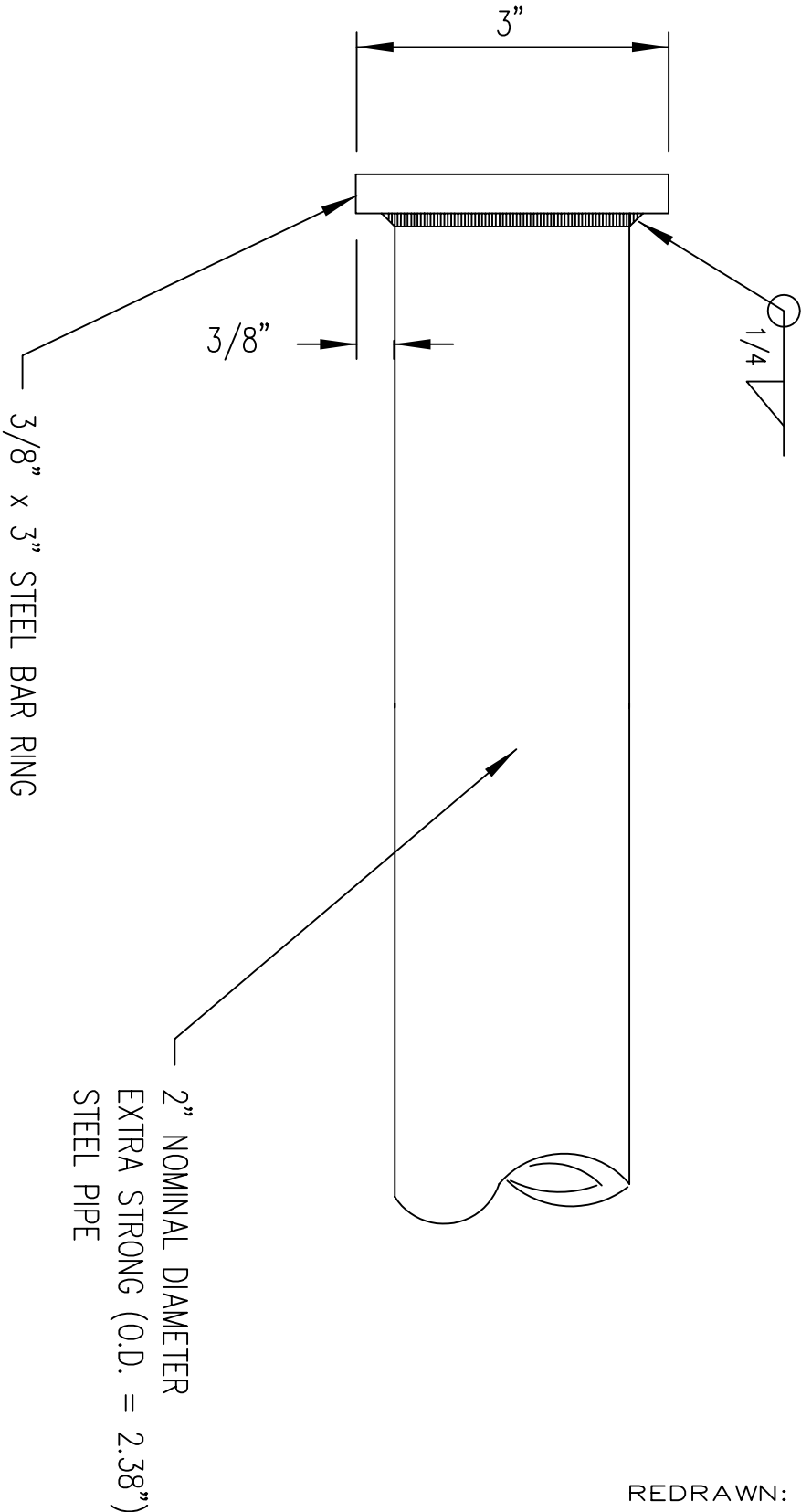
_____ COUNTY, PENNSYLVANIA
SQUARE - CIRCLE TRANSITION

Designed	<u>A. WOOD</u>	Date	<u>5/92</u>
Drawn	<u>S. DUNN</u>		<u>5/92</u>
Checked	_____		_____
Approved by	_____		_____

File No.	<u>PA-045D.dwg</u>
Drawing No.	<u>PA-045D</u>
Sheet	_____ of _____



PLAN VIEW



SECTION A-A

- NOTES**
1. Steel bars shall be ASTM-A36.
 2. Steel pipe shall be ASTM-A53.
 3. All steel shall be galvanized; welds shall be hot-dipped or coated with a cold galvanizing compound.

Not To Scale

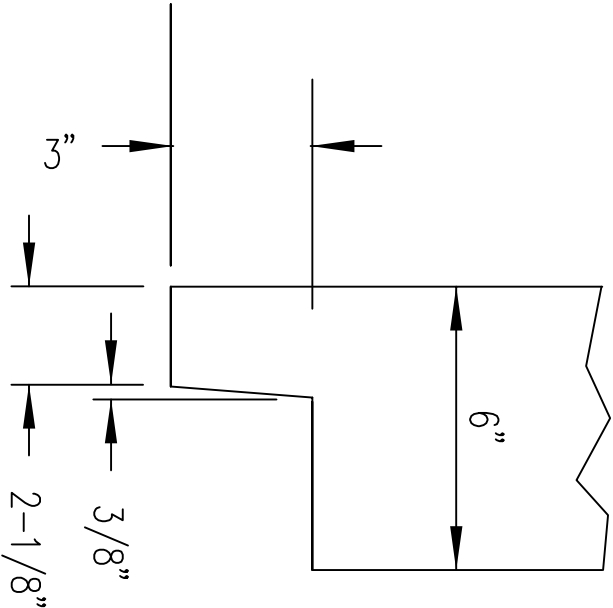
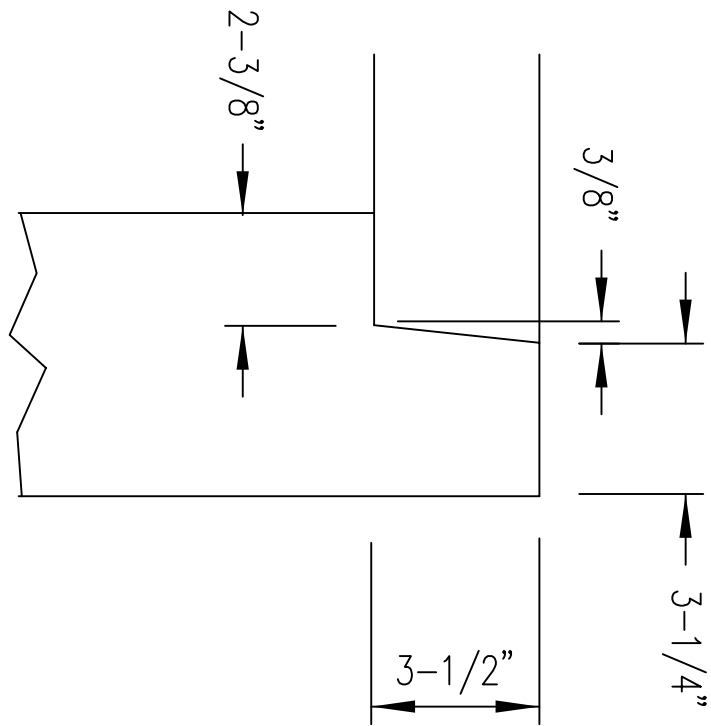
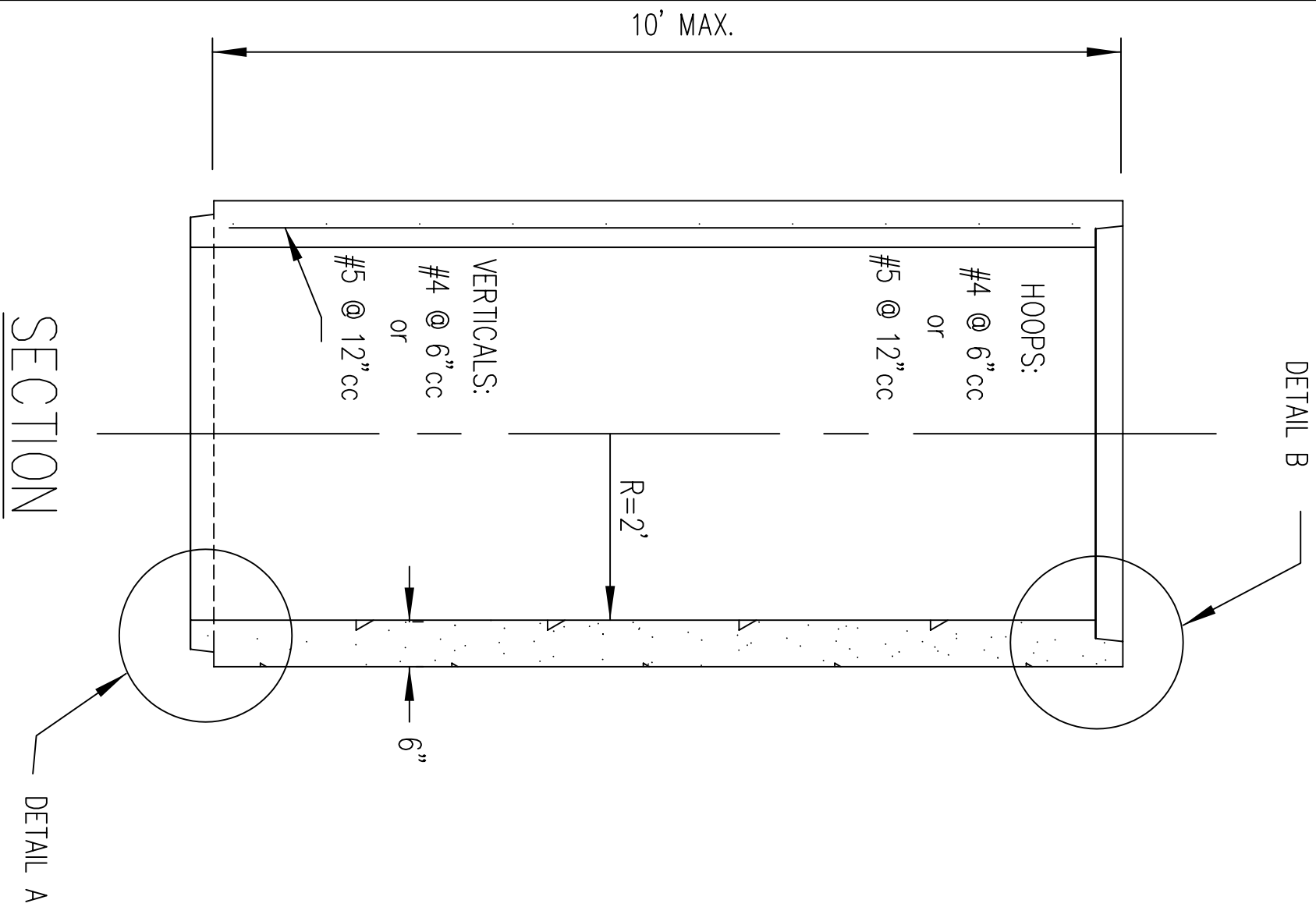
REDRAWN: TJA 7/05

Designed	<u>A. WOOD</u>	Date	<u>5/92</u>
Drawn	<u>S. DUNN</u>		<u>5/92</u>
Checked	_____		_____
Approved by	_____		_____

_____ COUNTY, PENNSYLVANIA
4' DIAMETER GRATE



File No.	<u>P1-045R.dwg</u>
Drawing No.	<u>P1-045R</u>
Sheet	_____ of _____



DETAIL B

DETAIL A

NOTES

1. Reinforcing steel shown is for sections buried not greater than 30'.
2. Standard precast pipe with equal or greater strength may be substituted; adapt joints as needed.

Not To Scale

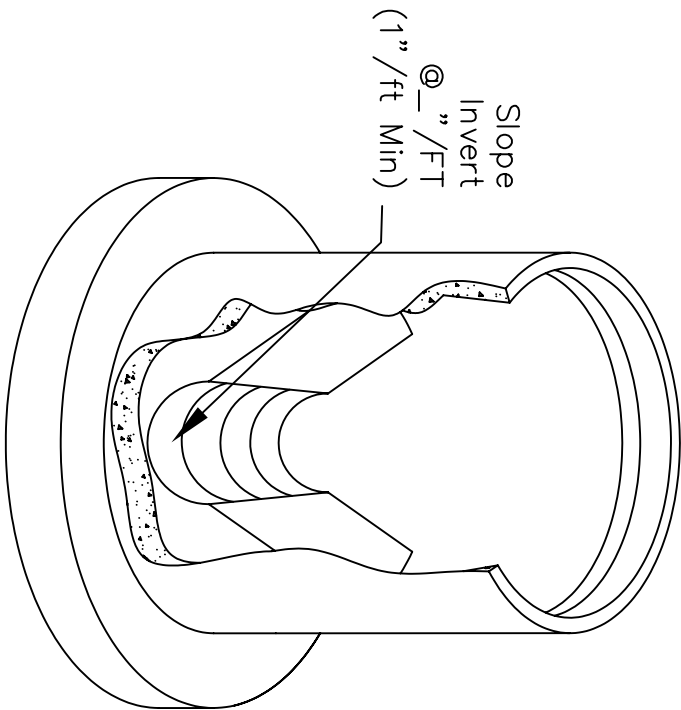
REDRAWN: TJA 7/05

COUNTY, PENNSYLVANIA
ROUND HOPPER SECTION

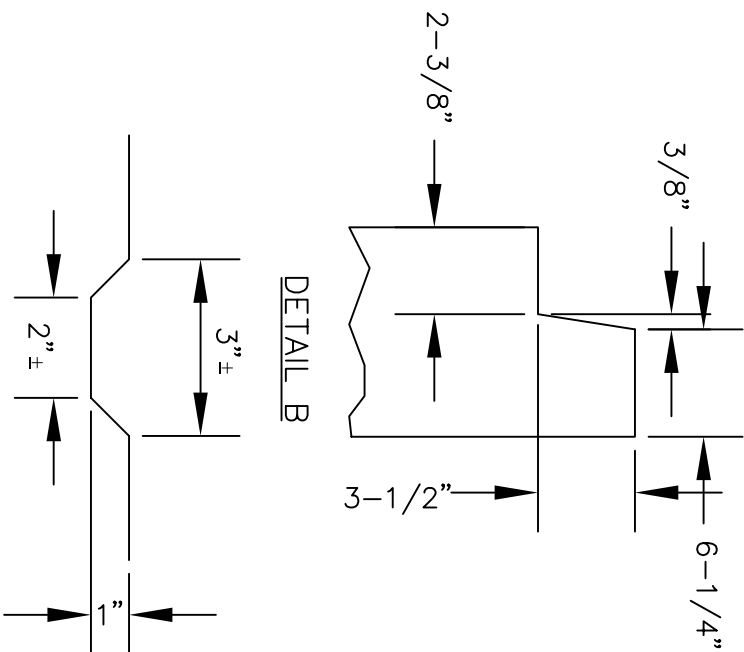
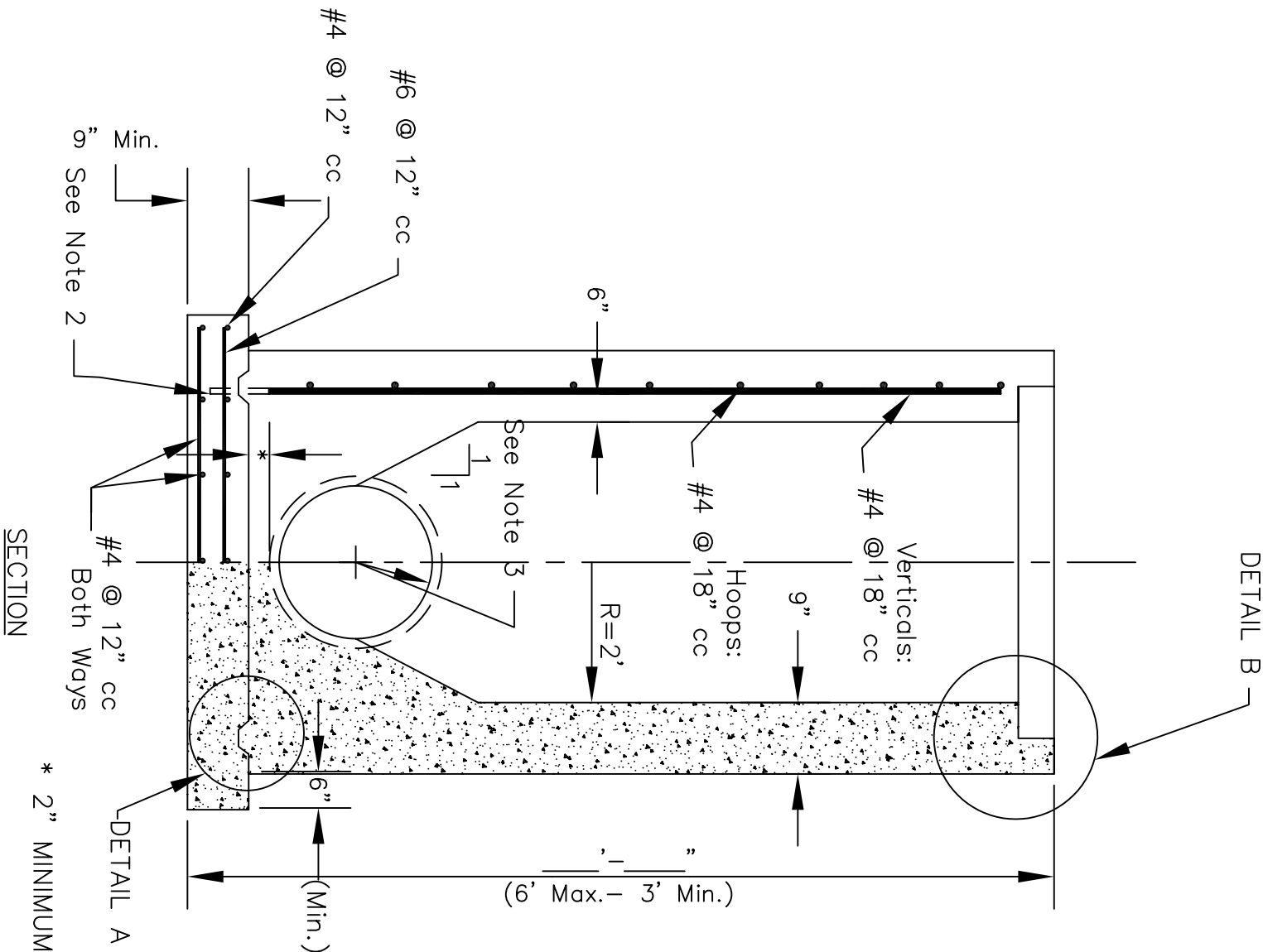
Dated	5/92
Designed	A. WOOD
Drawn	S. DUNN
Checked	
Approved by	



File No.	PA-045F.dwg
Drawing No.	PA-045F
Sheet	1 of 1



ISOMETRIC CUT-AWAY



DETAIL A

DETAIL B

NOTES:

1. Floor thickness and/or diameter may be increased as needed to prevent flotation.
2. If floor is cast as unit with upper section, continue vertical rebars into floor.
3. Cast opening as needed to match connecting transfer pipe; 24" maximum diameter.
4. Reinforcing steel shown is for section buried not greater than 30'.
5. Standard precast manhole base with equal or greater strength may be substituted; adapt invert and joints as needed.

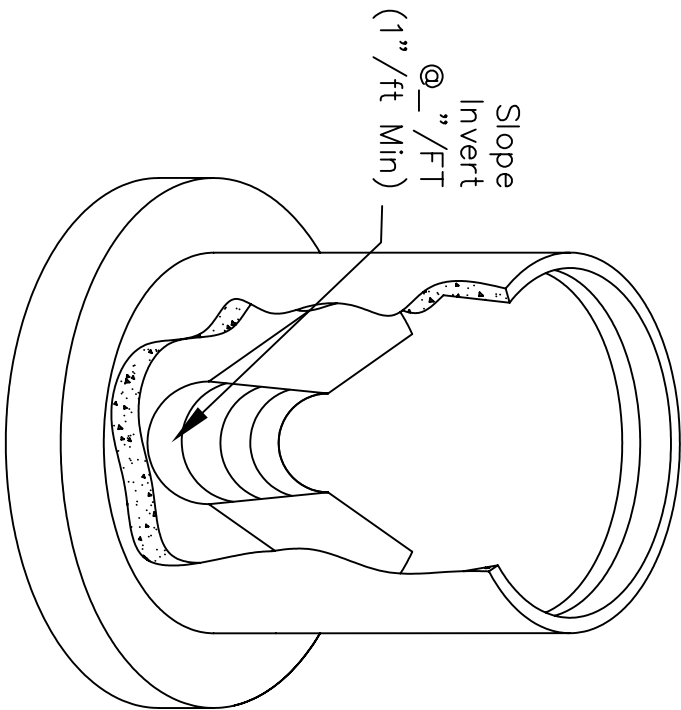
REDRAWN: TJA 7/05



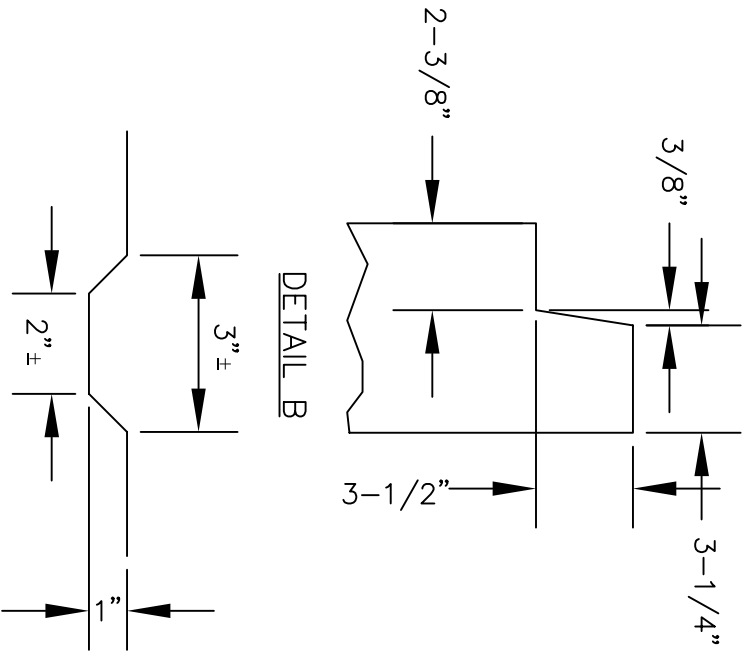
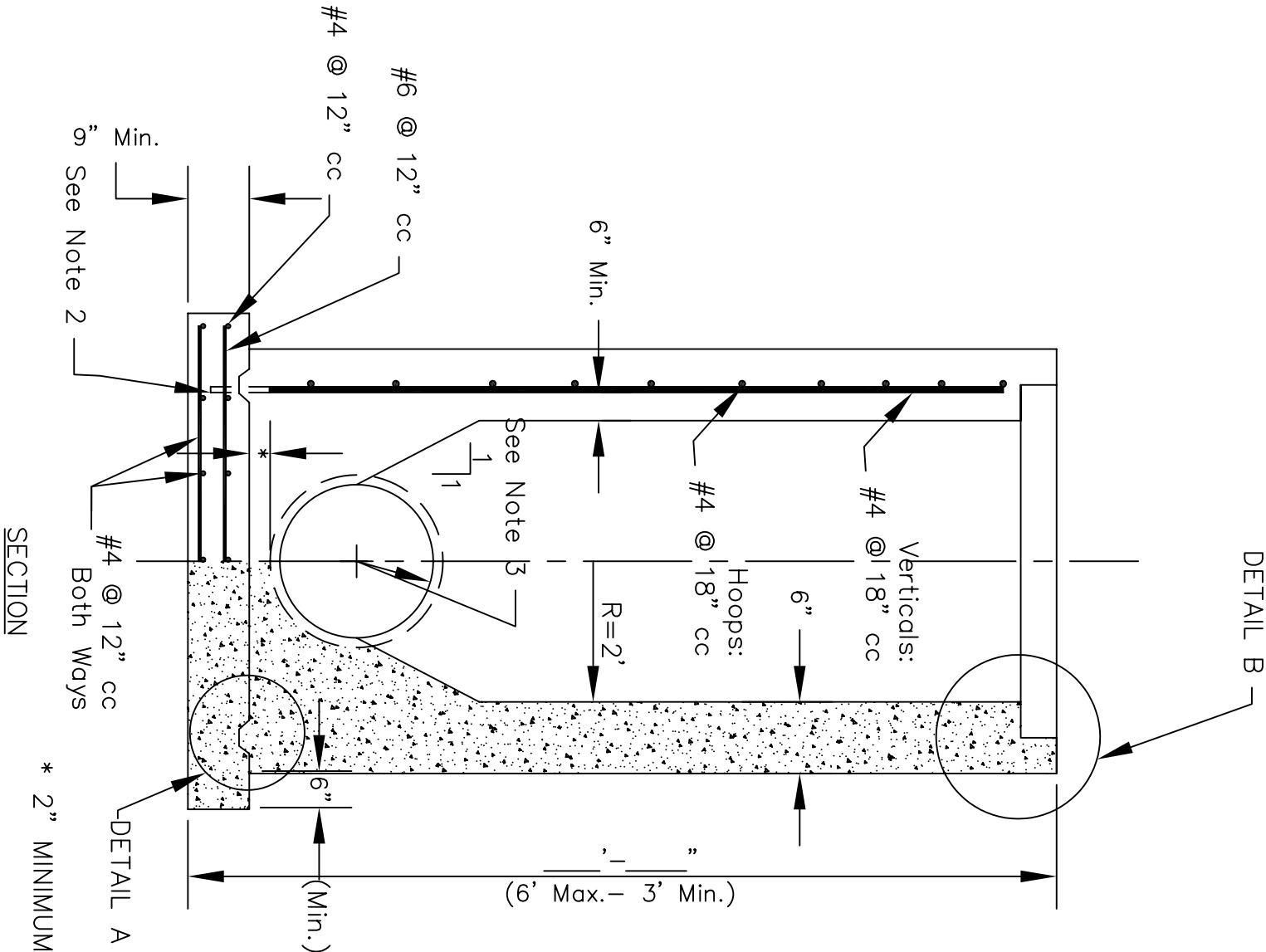
COUNTY, PENNSYLVANIA
HOPPER BASE

Date **4/92**
Designed **A. WOOD**
Drawn **S. DUNN**
Checked _____
Approved by _____

File No. **PA-0456.dwg**
Drawing No. **PA-0456**
Sheet _____ of _____



ISOMETRIC CUT-AWAY



NOTES:

1. Floor thickness and/or diameter may be increased as needed to prevent flotation.
2. If floor is cast as unit with upper section, continue vertical rebars into floor.
3. Cast opening as needed to match connecting transfer pipe; 24" maximum diameter.
4. Reinforcing steel shown is for section buried not greater than 16'.
5. Standard precast manhole base with equal or greater strength may be substituted; adapt invert and joints as needed.

REDRAWN: TJA 7/05



COUNTY, PENNSYLVANIA
HOPPER BASE

Date **4/93**
Designed **A. WOOD**
Drawn **S. DUNN**
Checked _____
Approved by _____

File No. **PA-045H.dwg**
Drawing No. _____
PA-045H
Sheet _____ of _____